

Glossary

Fire Management Glossary

Active Crown Fire When the main surface fire and the fire burning in the crowns are moving together across the fire front.

Adaptive Management A type of natural resource management that implies making decisions as part of an on-going process. Monitoring the results of actions will provide a flow of information that may indicate the need to change a course of action. Scientific findings and the needs of society may also indicate the need to adapt resource management to new information.

Alluvial Pertaining to processes or materials associated with transportation or deposition by running water.

Appropriate Management Response The response to a wildland fire is based on an evaluation of risks to firefighter and public safety, the circumstances under which the fire occurs, including weather and fuel conditions, natural and cultural resource management objectives, protection priorities, and values to be protected. The evaluation must also include an analysis of the context of the specific fire within the overall local, geographic area, or national wildland fire situation.

Aquatic Growing or living in or frequenting water; taking place in or on water.

Aquatic Ecosystem A stream channel, lake or estuary bed, the water itself, and the biotic (living) communities that occur therein.

Aspect The direction a slope faces. For example, a hillside facing east has an eastern aspect.

Biological Diversity (Biodiversity) The number and abundance of species found within a common environment. This includes the variety of genes, species, ecosystems, and the ecological processes that connect everything in a common environment.

Biomass 1 - Wood products that may or may not be used commercially. 2 - The total weight of all living organisms in a biological community.

Biota The plant and animal life of a particular region.

Biotic Potential Factors that influence the ability of an animal to utilize its environment, including: reproductive rates, dispersal ability, habitat and life requisite specificity, and adaptability. Combine, these factors assign biotic potential of the animal.

Bole Trunk of a tree.

Boundary Areas Margins of different jurisdictions or fire management strategies, such as the perimeter of Yosemite National Park, or the transition between wilderness and non-wilderness areas.

Buffer Used in the context of GIS; a buffer is a zone of a specified distance around a feature.

Burned Area Rehabilitation The full range of post-fire activities to rehabilitate and restore fire damaged

lands, including protection of public health and safety.

Canopy The part of any stand of trees represented by the tree crowns. It usually refers to the uppermost layer of foliage, but it can be used to describe lower layers in a multi-storied forest.

Collaboration Managers, scientists and citizens working together to plan, implement and monitor land management activities. The intention is to engage people who have information, knowledge, expertise and an interest in the health of natural ecosystems and nearby communities.

Condition Class A classification based on a relative measure describing the degree of departure from the historical natural fire regime. See **Fire Regime**.

<http://www.frcc.gov/docs/FrccDefinitionsFinal.pdf>

Control Burn See Prescribed Fire or Burn.

Cooperators Federal, state, and local agencies and Indian tribes that participate in planning and conducting fire management projects and activities.

Core WUI Area of wildland urban interface delineated by structures and streets adjacent to them.

Critical Habitat Areas designated for the survival and recovery of state or federally listed threatened or endangered species.

Defensible Fuels Profile Zone (DFPZ) See Fuelbreak.

Defensible Space Area around structures needed to provide firefighters safe distance to work as wildland fire approaches

Degradation Reduction in quality. 1 - The process whereby the water quality and chemical, physical or biological integrity of a water body is decreased. 2 - Habitat quality can be changed by certain management activities. If the quality is reduced then habitat degradation has occurred.

DEIS (Draft Environmental Impact Statement) A working document that is released to governmental agencies and the general public for review and comment.

Designated Areas A mapped area with an identified Desired Condition and specific management direction to move toward the Desired Condition.

Desired Future Conditions (Target Conditions) Land or resource conditions that are expected to result if goals and objectives are fully achieved.

Duff A layer of decomposing organic matter beneath fresh needles and leaves

Early Forest Succession The biotic (or life) community that develops immediately following the removal or destruction of vegetation in an area. For example, grasses may be the first plants to grow in an area that was burned.

Glossary

Ecology The interrelationships of living things to one another and to their environment, or the study of these interrelationships.

Ecosystem An arrangement of living and non-living things and the forces that move them. Living things include plants and animals. Non-living parts of ecosystems may be rocks and minerals. Weather and wildland fire are two of the forces that act within ecosystems.

Ecotone A zone of intergradations between ecological communities.

Ecosystem Sustainability the capacity to maintain ecosystem health, productivity, diversity, and overall integrity, in the long run, in the context of human activity and use.

Endangered Species Those plant or animal species that are in danger of extinction throughout all or a significant portion of their range. Endangered species are identified by the Secretary of the Interior in accordance with the Endangered Species Act of 1973.

Endemic An organism that evolved in and is restricted to a particular locality. The Yosemite Toad found only in the Sierra Nevada region is an example.

Ephemeral Stream Streams that flow only as the direct result of rainfall or snowmelt. They have no permanent flow.

Escarpment A long, more or less continuous cliff or relatively steep slope produced by erosion or by faulting.

Fauna The animal life of an area.

Fine Fuels Fuels that ignite readily and are consumed rapidly by fire (e.g., cured grass, fallen leaves, needles, small twigs less than 1/4 inch diameter, also referred to as 1-hour fuels).

Fire Extent The size of the area that burned.

Fire Frequency A general term referring to the recurrence of fire in a given area over time.

Fire Hazard A fuel complex, defined by volume, type, condition, arrangement, and location, that determines the degree of ignition and of resistance to control. For example, the moisture content of the fuel will influence the ability of the fuel to catch and sustain fire (degree of ignition) and how difficult it will be to control or extinguish the fire (degree of control).

Fire Intensity A physical measure of the flames, in British Thermal Units per foot per second (BTU/ft/sec). This information can be generated using BEHAVE, a fire behavior prediction computer model. Related to flame length.

Fire Management Activities Include fire planning, fire management strategies, tactics, and alternatives, prevention; preparedness, education, and addresses the role of mitigation, post-fire rehabilitation, fuels reduction, and restoration activities in fire

management.

Fire Management Plan (FMP) A strategic plan that defines a program to manage wildland fires based on an area's approved land management plan. Fire Management Plans must address a full range of fire management activities that support ecosystem sustainability, values to be protected, protection of firefighter and public safety, public health and environmental issues, and must be consistent with resource management objectives and activities of the area.

Fire Regime The combination of fire frequency, predictability, intensity, seasonality, and extent characteristic of fire in an ecosystem.

<http://www.frcc.gov/docs/FrccDefinitionsFinal.pdf>

Fire Return Interval Expressed as a range of years or as the arithmetic average (mean fire return interval) of all fire intervals in a given area over a given time period.

Fire Return Interval Departure Number of missed fire cycles due to fire suppression. See **Condition Class**.

Fire Risk See wildland fire risk.

Fire Severity A measure of fuel consumption and effect on vegetation caused by fires of different intensity and/or season. Severity is divided into three categories: low, moderate, and high. Levels of severity of any wildland fire are distributed unevenly across the landscape. The variability and pattern of fire severity can be critical for establishing some species and for the formation of gaps.

Flora The plant life of an area.

Floristics The study of a particular association of plants or plant communities.

Focal Species A species of concern.

Fuel Hazard A fuel complex defined by kind, arrangement, volume, condition, and location that forms a special threat of ignition and resistance to control.

Fuelbreak A system of linear or mosaic patch treatments of forest or shrub vegetation designed and treated to reduce fire spread, intensity, and create barriers to fire spread.

Fuel load The amount of combustible material (dead plants and trees, litter, and duff) that is found in an area.

Fuels Plants and woody vegetation, both living and dead, that are capable of burning.

Fuels Management The planned manipulation and/or reduction of living and dead forest fuels for forest management and other land use objectives.

Fuels Treatment The treatment of fuels that left untreated, would otherwise interfere with effective fire management or control. For example, prescribed fire can reduce the amount of fuels that accumulate on the forest floor.

Fuelwood Wood cut into short lengths for burning in

Glossary

a fireplace, woodstove or fire pit.

Full Range of fire management See Fire Management Activities

Geographic Area Coordination Center (GACC) Interagency regional operational centers for fire resource coordination and mobilization. [National Interagency Coordination Center](#)

Geographic Information Systems (GIS) A computer system capable of storing, manipulating, analyzing, and displaying geographic information.

Habitat The area where a plant or animal lives and grows under natural conditions.

Hazard Reduction In fuels management: the planned treatment or manipulation of naturally growing vegetation or any other flammable material for the purpose of reducing the rate of spread and the output of heat energy from any wildland fire occurring in the treated area.

Hazard Reduction Prescription These are the specific parameters used to describe the conditions such as specific width, patch size and shape, species composition, diameter distributions, canopy cover, surface fuel mosaic, fire behavior, and location. They are determined at the site-specific project level based on topography, access, vegetation, risk of ignition, and potential fire behavior (this includes weather and wind).

Indigenous (Species) Any species of plant or animals native to a given land or water area by natural occurrence.

Initial Attack The aggressive response to a wildland fire based on values to be protected, benefits of response, and reasonable cost of response.

Inner WUI Wildland Urban interface area defined as the core WUI community plus a ¼ mile wide zone around it. The zone may be narrower, depending on topography and the presence of natural barriers to fire spread.

Interdisciplinary Team A diverse group of professional resource specialists who analyze the effects of Alternatives on natural and other resources. Through interaction, participants bring different points of view and a broader range of expertise.

Interagency Coordination, collaboration, communication among cooperating agencies.

Intermittent Stream A stream that flows only at certain times of the year when it receives water from streams or from some surface, such as melting snow.

Landscape A large land area composed of interacting ecosystems that are repeated due to factors such as geology, soils, climate, and human impacts.

Late Forest Succession The stage of forest succession in which most of the trees are mature or overmature.

Lithology The physical and/or chemical character of a rock or geologic layer generally observed in the

field with a low powered lens or the naked eye.

Long-Term Risk A wildland fire risk to be experienced within the next 50 to 100 years.

Management Action Any activity undertaken as part of the administration of the national park.

Managed Wildland Fire A natural (lightning) ignited fire that is managed to meet resource benefits.

Maximum manageable area (MMA) The maximum size a wildland fire allowed to burn for resource benefits may become. It defines the planned project area for the fire; the actual fire may be much smaller than the MMA

Mechanical fuel reduction The removal or rearrangement of wildland fuels with equipment, which may include chain saws, wheeled or tracked vehicles, and chipping.

Meadow Tracks of moist low lying and usually level grasslands. Generally, the water table is just below the surface of the soil and the most abundant vegetation is usually favored by wet but not constantly flooded soil.

Mesic 1 - Moderately moist climates or environments. 2 - Vegetation: generally refers to vegetation found in moist environments. 3 - Soils: refers specifically to soils with mean annual temperatures of 8 to 15 degrees centigrade.

Mosaic Areas with a variety of plant communities over a landscape. For example, areas with trees and areas without trees occurring over a landscape.

Natural Resource A feature of the natural environment that is of value in serving human needs.

Natural Succession The natural replacement, in time, of one plant community with another. Conditions of the prior plant community (or successional stage) create conditions that are favorable for the establishment of the next stage.

Noxious Weeds Aggressive, non-native plant species that have been introduced. They can be difficult to manage, poisonous, toxic, parasitic, or carrier of insects or disease. Examples of park noxious weeds would be yellow star thistle, spotted knapweed, bull thistle and Himalayan Blackberry.

Old Forest (Old Growth) Areas that contain large, old trees relative to the species-specific, environmentally-constrained growth capacity of the site.

Oligotrophic A water body (usually a lake) that is characterized by having a low concentration of nutrients and low productivity.

Outer WUI Wildland urban interface area defined as the zone from the outside edge of the Inner WUI area extending to no more than 1 ½ miles from the core WUI community.

Paleoecological The study of ancient or prehistoric ecosystems.

Glossary

Passive Crown Fire An intense surface fire that torches occasional individual trees or small groups of trees, during this condition the surface fire is moving faster than the occasional torching of trees. Any spotting is usually short range less than ¼ mile and supports the surface fire spread.

Patch An area of vegetation, similar in structure and composition.

Perennial Stream A stream that typically has running water on a year-round basis.

Prescribed Fire or Burn Any fire ignited by management actions to meet specific objectives. Prescribed fires are conducted in accordance with prescribed fire plans.

Prescribed Fire Plan A plan for each prescribed fire. Plans are documents prepared by qualified personnel, approved by the agency administrator, and include criteria for the conditions under which the fire will be conducted (a prescription).

Prescription Measurable criteria that define the conditions under which a prescribed fire will be ignited, guide selection of appropriate management responses, and indicate other required actions. Prescription criteria may include safety, economic, public health, and environmental, geographic, administrative, social, or legal considerations.

Public Involvement The use of appropriate procedures to inform the public, obtain early and continuing public participation, and consider the views of interested parties in planning and decision-making.

Remote Sensing Acquiring information about a geographic feature without contacting it physically. Methods include aerial photography and satellite imaging.

Resilience The ability of an ecosystem to maintain diversity, integrity, and ecological processes following a disturbance.

Riparian Area The area along a watercourse or around a lake or pond.

Riparian Ecosystem The ecosystem around or next to water areas that support unique vegetation and animal communities as a result of the influence of water.

ROD (Record of Decision) An official document in which a deciding official states the alternative that will be implemented from a prepared EIS.

Satellite Image A picture of the earth taken from a satellite in orbit around the earth.

Sensitive Species Plant or animal species which are susceptible to habitat changes or impacts from activities.

Seral Stage The stage of succession of a plant or animal community that is transitional. If left alone, the seral stage will give way to another plant or animal community that represents a further stage of succession.

Short-Term Risk A wildland fire risk to be experienced within the next 10 to 15 years. For example, prescribed burns can disturb habitat in the short-term, but in the long-term the fire resiliency of the habitat may be improved.

Snag A standing dead tree. Snags are important as habitat for a variety of wildlife species and their prey.

Spatial Analysis See Spatial Data.

Spatial Data A GIS contains spatial data. The spatial data represents geographic features associated with real-world locations.

Special Management Area An area with unique issues or features that need to be highlighted within the fire management program, such as giant sequoia groves and administrative boundary areas of Yosemite National Park.

Species A class of individuals having common attributes and designated by a common name; a category of biological classification ranking immediately below the genus or subgenus; comprising related organisms or populations potentially capable of interbreeding.

Stand A group of trees that occupies a specific area and is similar in species, age, and condition.

Standards and Guidelines The primary instructions for land managers. Standards address mandatory actions, while guidelines are recommended actions necessary to a land management decision.

Stand Replacement Fire A fire that burns with sufficient intensity to kill the majority of living vegetation over a given area (grass and brush fires are stand replacement fires for that vegetation type, in forest vegetation types when 75- 80% of the stand is killed by fire are also considered stand replacement fires).

Target Conditions A range of conditions describing vegetation characteristics which existed prior to the onset of the influence of Euro-Americans.

Threatened Species Those plant or animal species likely to become endangered throughout all or a specific portion of their range within the foreseeable future as designated by the U.S. Fish and Wildlife Service under the Endangered Species Act of 1973.

Treatment Area The site-specific location of a resource improvement activity.

Understory The trees and woody shrubs growing beneath branches and foliage formed collectively by the upper portions of adjacent trees.

Vegetation Management Activities designed primarily to promote the health of forest vegetation for multiple-use purposes.

Values To Be Protected Include property, structures, physical improvements, natural and cultural resources, community infrastructure, and economic, environmental, and social values.

Visual Quality The visual resources; terrain, geological features, or vegetation.

Glossary

Watershed The entire region drained by a waterway, lake, or reservoir. More specifically, a watershed is an area of land above a given point on a stream that contributes water to the streamflow at that point.

Wilderness An area of land designated by Congress to be managed according to the Wilderness Act of 1964.

Wildland An area in which development is essentially non-existent, except for roads, railroads, powerlines, and similar transportation facilities

Wildland Fire Any non-structural fire that occurs on wildlands that is not a prescribed fire.

Wildland Fire Implementation Plan (WFIP) A progressively developed assessment and operational management plan that documents the analysis and selection of strategies and describes the appropriate management response for a wildland fire being managed for resource benefits. A full WFIP consists of three stages. Different levels of completion may occur for differing management strategies (i.e., fires managed for resource benefits will have two-three

stages of the WFIP completed while some fires that receive a suppression response may only have a portion of Stage I completed).

Wildland Fire Risk The probability of a fire occurring.

Wildland Fire Threat The potential fire behavior and related fire effects (rate of spread, fire intensity, tree mortality, structure loss, etc.) due to the interactions of fuels, weather, and topography.

Wildland Fire Use See Managed Wildland Fire

Wildland Urban Interface Defined as the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

Xeric A soil moisture regime common to Mediterranean climates that have moist cool winters and warm dry summers. A limited amount of water is present but does not occur at optimum periods for plant growth.

Acronyms and Abbreviations

AAR	After Action Review	MOA	Memorandum of Agreement
AMR	Appropriate Management Response	MOU	Memorandum of Understanding
APCD	Air Pollution Control District	Mph	miles per hour
AQMD	Air Quality Management District	NA	not applicable
BAER	Burned Area Emergency Rehabilitation	NAAQS	National Ambient Air Quality Standards
BLM	Bureau of Land Management	NEPA	National Environmental Policy Act
BMP	Best Management Practice	NHPA	National Historic Preservation Act
Btu	British Thermal Unit	NO₂	nitrogen dioxide
CAA	Clean Air Act	NO_x	nitrogen oxide
CFR	Code of Federal Regulations	NRCS	Natural Resources Conservation Service
Cfs	cubic feet per second	NRHP	National Register of Historic Places
CO	carbon monoxide	NWCG	National Wildfire Coordinating Group
COE	U.S. Army Corps of Engineers	NWI	National Wetlands Inventory
dB	decibel(s)	O₃	ozone
dba	decibels on the “A” weighted scale	ORV	Outstandingly Remarkable Values
DEIS	draft Environmental Impact Statement	PA	Programmatic Agreement
DOE	U.S. Department of Energy	PL	Public Law
DO	Director’s Order	PM	particulate matter, when used as PM ₁₀ or PM _{2.5}
DOI	U.S. Department of the Interior	PPE	Personal Protective Equipment
EA	Environmental Assessment	Ppm	parts per million
EIR	Environmental Impact Report	PSD	Prevention of Significant Deterioration
EIS	Environmental Impact Statement	P	total particulate
EMFAC	Emission Factor	ROD	Record of Decision
EPA	U.S. Environmental Protection Agency	RPO	River Protection Overlay
FES	Federal Endangered Species Act	RTE	rare, threatened, and endangered
FEMA	Federal Emergency Management Agency	RWQCB	Regional Water Quality Control Board
FICN	Federal Interagency Committee on Noise	RXB2	Burn Boss Type 2
ft/sec	feet per second	SACS	Shared Application Computer System
FMU	Fire Management Unit	SHPO	State Historic Preservation Office (or Officer)
FONSI	finding of no significant impact	SIP	State Implementation Plan
FRID	Fire Return Interval Departure	SO₂	sulfur dioxide
GACC	Geographic Area Coordination Center	SOF	Statement of Findings
gal.	gallons	SWRCB	State Water Resources Control Board
GIS	geographic information system	TES	threatened and endangered species
GMP	General Management Plan	TOG	total organic gases
Gpd	gallons per day	TPAC	Town Planning Advisory Council
GSA	Government Services Administration	USC	U.S. Code
HVR	highly valued resources or high value resource	USFS	U.S. Forest Service
ID	Interdisciplinary team	USFWS	U.S. Fish and Wildlife Service
IAP	Incident Action Plan	USGS	U.S. Geological Survey
ICS	Incident Command System	UTM	Universal Transverse Mercator
JHA	Job Hazard Analysis	VERP	Visitor Experience and Resource Protection (framework)
IMPROVE	Interagency Monitoring of Protected Visual Environments	VOC	volatile organic compound
kWh	kilowatt hour	WFSA	Wildland Fire Situation Analysis
µg/m³	micrograms/cubic meter	WFIP	Wildland Fire Implementation Plan
MIMT	Minimum Impact Management Techniques	WUI	Wildland/urban interface
MIST	Minimum Impact Suppression Techniques		
MMA	Maximum Manageable Area		